

Claims

- [c1] A process for making an essentially natural rubber latex-free elastic compression bandage comprising, providing a homogeneous mixture containing from about 10 to about 70 percent by weight synthetic natural rubber, from about 5 to about 60 percent by weight secondary elastomeric compound, from about 15 to about 35 percent by weight inorganic fillers, and processing aids, feeding the homogeneous mixture to an extruder to provide an extruded web, calendering the extruded web to provide a calendered web, and electron beam curing the calendered web to provide an elastic web having a reduced bio-burden, wherein the percentages by weight of the mixture or based on the total weight of the mixture.
- [c2] The process of claim 1 further comprising dusting the calendered web with hydrous magnesium silicate prior to curing the web to provide a tack-free calendered web.
- [c3] The process of claim 2 further comprising removing excess hydrous magnesium silicate from the calendered web before and after curing the web.
- [c4] The process of claim 1 further comprising slitting the elastic web to provide compression bandages.
- [c5] The process of claim 1 wherein the synthetic natural rubber comprises synthetic polyisoprene.
- [c6] The process of claim 1 wherein the secondary elastomeric compound comprises styrene-butadiene rubber block copolymer.
- [c7] The process of claim 6 wherein the secondary elastomeric compound is pre-masticated in a masterbatch prior to mixing the secondary elastomeric compound with the synthetic natural rubber.
- [c8] An elastic compression bandage having a reduced bio-burden made by the method of claim 1.
- [c9] A natural rubber latex-free elastic bandage or band comprising an electron

beam cured mixture containing from about 20 to about 90 parts by weight synthetic natural rubber, from about 10 to about 80 parts by weight secondary elastomeric compound, inorganic fillers and processing aids, wherein the bandage or band exhibits a bio-burden level which is achievable only by prolonged sterilization techniques.

- [c10] The bandage or band of claim 9 further comprising a dusting containing hydrous magnesium silicate.
- [c11] The bandage or band of claim 9 wherein the synthetic natural rubber comprises synthetic polyisoprene.
- [c12] The bandage or band of claim 9 wherein the secondary elastomeric compound comprises styrene-butadiene rubber block copolymer.
- [c13] The bandage or band of claim 9 wherein the inorganic fillers are selected from the group consisting of silicon dioxide, carbonates and silicates of magnesium, calcium, aluminum and zinc, and mixtures thereof.
- [c14] The bandage or band of claim 9 wherein the inorganic filler comprises a mixture of calcium carbonate and precipitated silicon dioxide.